P801461/WO/1


## Abstract

Device for controlling an engine (1) and/or transmission (2) having a control device (3, 4) which is arranged remotely from the engine/transmission (1, 2) and which provides the open-loop and closed-loop control algorithms, and a unit which is electrically conductively connected directly to a plurality of sensors (12, 18) and/or actuators (13, 19) and which is attached to the engine/transmission (1, 2), wherein the unit has an A/D converter for converting the sensor signals originating from the sensors (12, 18) into digital sensor signals, and the digital sensor signals are converted into data bus signals by means of a data bus transceiver unit (10, 11, 15, 16) in order to be able to communicate via a data bus (8, 20) between the unit and the control device (3, 4) which is arranged remotely therefrom. According to the invention the device has a uniform sensor/actuator interface (9, 17) with a plurality of parallel connections for the sensors/actuators (12, 13, 18, 19) and a connection for the data bus (8, 20), a signal converter is provided for converting the sensor signals of a plurality of sensors (12, 18) into the data bus signal so that the same control device (3, 4) can be used for embodiments of the device with different wiring connections to sensors/actuators (12, 13, 18, 19) without hardware changes to its sensor/actuator connection, and the signal converter converts the sensor signals directly into the data bus signals in accordance with an open-loop/closed-loop control algorithm without the intermediate connection of a calculating means.

(Fig. 1)